

Attorney Docket No. 010071

IN THE CLAIMS

Please amend claims 1, 16, and 23 as shown below. Please cancel claims 9, 19, and 23-37. A complete listing of the claims is shown below.

1. (Currently Amended) A method for controlling transmissions on an uplink in a communication system, comprising:

determining one or more characteristics of the communication system;

partitioning available system resources into a plurality of channels;

defining a plurality of back-off factors for the plurality of channels based at least in part on the one or more determined characteristics of the communication system, wherein each channel is associated with a respective back-off factor that identifies a reduction from peak transmit power level, and wherein each back-off factor ranges from zero to one; and

assigning the plurality of channels to terminals for data transmission at power levels determined based at least in part on the plurality of back-off factors, wherein at least one channel is associated with a back-off factor of one, representative of full transmit power, and remaining channels are associated with back-off factors of less than one.

2. (Original) The method of claim 1, wherein the one or more determined characteristics include characterization of interference on the plurality of channels.

3. (Original) The method of claim 1, wherein the one or more determined characteristics include loading probabilities for the communication system.

4. (Original) The method of claim 1, wherein the plurality of back-off factors are defined to approximately match the one or more determined characteristics of the communication system.

5. (Original) The method of claim 1, wherein the plurality of back-off factors are defined to approximately match C/I characterization of terminals in the communication system.

Attorney Docket No. 010071

6. (Original) The method of claim 1, wherein the plurality of back-off factors are defined based in part on one or more setpoints selected for the plurality of channels, wherein each setpoint corresponds to a C/I required for a particular level of performance.
7. (Original) The method of claim 6, wherein the one or more setpoints are determined based in part on data rates of data transmissions on the plurality of channels.
8. (Original) The method of claim 1, further comprising:
estimating a link margin for each channel;
adjusting the plurality of back-off factors based on the estimated link margin.
9. (Cancelled)
10. (Original) The method of claim 1, further comprising:
adaptively adjusting the plurality of back-off factors to reflect changes in the communication system.
11. (Original) The method of claim 1, further comprising:
reducing one or more back-off factors for a particular time duration to reduce interference on the associated channels.
12. (Original) The method of claim 1, further comprising:
setting one or more back-off factors to zero for a particular time duration to eliminate interference on one or more associated channels.
13. (Original) The method of claim 1, wherein the available system resources are partitioned into a plurality of time division multiplexed (TDM) time slots, and wherein the plurality of channels correspond to defined sets of time slots.
14. (Original) The method of claim 1, wherein the available system resources are partitioned into a plurality of frequency division multiplexed (FDM) channels.

Attorney Docket No. 010071

15. (Original) The method of claim 1, wherein the available system resources are partitioned into a plurality of code division multiplexed (CDM) channels.

16. (Currently Amended) A method for controlling transmissions on an uplink in a communication system, comprising:

defining a reuse pattern for the communication system, wherein the reuse pattern includes a plurality of cells;

determining one or more characteristics for each cell in the communication system;

partitioning available system resources into a plurality of channels;

defining a plurality of back-off factors for the plurality of channels for each cell in the communication system based at least in part on the determined one or more characteristics, wherein each channel of each cell is associated with a respective back-off factor that identifies a reduction from peak transmit power level, and wherein each back-off factor ranges from zero to one; and

assigning the plurality of channels in each cell to terminals within the cell for data transmission at power levels determined based at least in part on the back-off factors associated with the assigned channels, wherein the back-off factors for each cell in the reuse pattern are approximately staggered from those of neighboring cells in the reuse pattern.

17. (Original) The method of claim 16, wherein the one or more determined characteristics for each cell include characterization of interference on the plurality of channels in the cell.

18. (Original) The method of claim 17, wherein the plurality of back-off factors for each cell are defined based in part on the interference characterization for the cell.

19. (Cancelled)

20. (Original) The method of claim 16, further comprising:

Attorney Docket No. 010071

adjusting the back-off factors assigned to the channel in each cell to reduce co-channel interference.

21. (Original) The method of claim 16, further comprising:

estimating link margins for the channels in each cell; and

adjusting the back-off factors for each cell based on the estimated link margins.

22. (Original) The method of claim 16, further comprising:

at a particular cell, receiving one or more requests from one or more neighbor cells to reduce the back-off factor for a particular channel; and

reducing the back-off factor for the channel in accordance with the one or more received requests.

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Cancelled)

36. (Cancelled)

Attorney Docket No. 010071

37. (Cancelled)